In the Claims

1. (original)   A method comprising the steps of:

creating a track profile for at least one track of a plurality of tracks using error signals for the at least one track;

creating an adjacent track profile for a track adjacent to the at least one track using error signals for the adjacent track; and

determining a head positioning profile for the at least one track using the track profile and the adjacent track profile.

2. (original)   The method of Claim 1, wherein each track profile is a PES RRO track profile.

3. (original)   The method of Claim 1 further comprising the step of creating a second adjacent track profile for a second track adjacent to the at least one track using error signals for the second adjacent track, wherein the determining step also uses the second adjacent track profile.

4. (original)   The method of Claim 3, wherein a track profile is represented by WI, the at least one track is represented by n, the track adjacent to the at least one track is represented by n-1, and the second track adjacent to the at least one track is represented by n+1, the head positioning profile is represented by $ZAP(n)$, and wherein $ZAP(n) = -WI(n) - alpha*[WI(n-1) + WI(n+1)]$, where alpha is a number between 0 and 1.

5. (original)   The method of Claim 4, wherein alpha is substantially equal to 0.5.

6. (original)   A method of compensating for positioning errors in a data storage device, comprising the step of:

using track profile information for a track being ZAPed in addition to track profile information for a track adjacent to the track being ZAPed when ZAPing the track.

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7. (original)   The method of claim 6, further comprising a step of selectively ZAPing particular tracks on the data storage device based upon whether a given tracks' maximum profile exceeds a predetermined threshold value.

8. (original)   The method of Claim 6, wherein track profile information for another track adjacent to the track being ZAPed is also used when ZAPing the track.

9. (original)   The method of Claim 6, wherein the track is ZAPed according to $ZAP(n) = -WI(n) - alpha*[WI(n-1) + WI(n+1)]$, wherein $WI(n)$ is the track profile information for track n, $WI(n-1)$ is the track profile information for the track adjacent to the track being ZAPed, $WI(n+1)$ is the track profile information for the another track adjacent to the track being ZAPed, and wherein alpha is a numeric value between 0 and 1.

10. (original)   The method of Claim 9 wherein alpha is substantially equal to 0.5.

11. (original)   A system for compensating for positioning errors in a data storage device having a plurality of tracks by zero acceleration processing (ZAP), comprising:

      means for selectively determining which of the plurality of tracks to ZAP; and

      means for ZAPing at least one of the selectively determined tracks using a track profile of the track being ZAPed in addition to a track profile of a track adjacent to the track being ZAPed to generate a head positioning profile for the at least one track.

12. (original)   The system of Claim 11, wherein each track profile is a PES RRO track profile.

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